

CLAIM AMENDMENTS:

The listing of claims will replace all prior versions, and listing, of claims in the application:

1. (Previously presented) A method for generating a wobble signal of an optical-electronic system, comprising:

generating a reference signal in response to a first input signal and a second input signal that are derived from a plurality of light signals reflected from an optical storage medium, wherein the plurality of reflected light signals are used for generating the reference signal even when the optical-electronic system is recording data onto the optical storage medium; and

processing the reference signal to generate the wobble signal.

2. (Original) The method for generating a wobble signal as claimed in claim 1, wherein the plurality of light signals comprises a first light signal, a second light signal, a third light signal, and a fourth light signal that are all used for generating the reference signal continuously.

3. (Original) The method for generating a wobble signal as claimed in claim 1, further comprising a step of attenuating the first input signal and the second input signal before the first input signal and the second input signal being used to generate the reference signal.

4. (Previously presented) The method for generating a wobble signal as claimed in claim 3, further comprising a step of amplifying the reference signal before being the reference signal processed for generating the wobble signal.

5. (Original) The method for generating a wobble signal as claimed in claim 1, wherein the reference signal is substantially a multiplication of a factor and a difference between the first input signal and the second input signal.

6. (Original) The method for generating a wobble signal as claimed in claim 5, wherein the factor is a substantial ratio of resistances that are used for attenuating the first input signal and the second input signal.

7. (Original) A method for generating a wobble signal of an optical-electronic system, comprising:

generating a reference signal by attenuating a first input signal and a second input signal that are derived from a plurality of continuous light signals reflected from an optical storage medium; and

processing the reference signal to generate the wobble signal, wherein the plurality of continuously reflected light signals is used to derive the first input signal and the second input signal for generating the reference signal even when the optical-electronic system is recording data onto the optical storage medium.

8. (Previously presented) The method for generating a wobble signal as claimed in claim 7, wherein the plurality of continuous light signals comprises a first light signal, a second light signal, a third light signal, and a fourth light signal that are all used to derive the first input signal and the second input signal for generating the reference signal continuously.

9. (Original) The method for generating a wobble signal as claimed in claim 7, further comprising a step of attenuating the first input signal and the second input signal before the first input signal and the second input signal being used to generate the reference signal.

10. (Previously presented) The method for generating a wobble signal as claimed in claim 9, further comprising a step of amplifying the reference signal before the first input signal and the second input signal being processed for generating the wobble signal.

11. (Previously presented) The method for generating a wobble signal as claimed in claim 7, wherein the reference signal is substantially a multiplication of a factor and a difference between the first input signal and the second input signal.

12. (Original) The method for generating a wobble signal as claimed in claim 11, wherein the factor is a substantial ratio of resistances that are used for attenuating the first input signal and the second input signal.

13. (Previously presented) A wobble signal generating apparatus of an optical-electronic system, comprising:

a first operation unit for generating a reference signal in response to a first input signal and a second input signal that are derived from a plurality of light signals reflected from an optical storage medium, wherein the plurality of reflected light signals are used for generating the reference signal even when the optical-electronic system is recording data onto the optical storage medium; and

a processing unit for processing the reference signal to generate the wobble signal.

14. (Original) The wobble signal generating apparatus as claimed in claim 13, wherein the plurality of light signals comprises a first light signal, a second light signal, a third light signal, and a fourth light signal that are all used for generating the reference signal continuously.

15. (Original) The wobble signal generating apparatus as claimed in claim 14, wherein the first input signal is substantial a summation of the first light

signal and the fourth light signal and the second input signal is substantial a summation of the second light signal and the third light signal.

16. (Previously presented) The wobble signal generating apparatus as claimed in claim 13, wherein the reference signal is substantially a multiplication of a factor and a difference between the first input signal and the second input signal.

17. (Original) The wobble signal generating apparatus as claimed in claim 16, wherein the factor is a ratio of resistances that are used for attenuating the first input signal and the second input signal.

18. (Original) The wobble signal generating apparatus as claimed in claim 13, wherein the first operation unit comprises a non-inverting terminal, an inverting terminal and an output terminal, the non-inverting terminal receives the first input signal and the inverting terminal receives the second input signal for generating and delivering the reference signal via the output terminal.

19. (Original) The wobble signal generating apparatus as claimed in claim 18, further comprising:

a first attenuator coupled with the first operation unit for attenuating the first input signal; and

a second attenuator coupled with the first operation unit for attenuating the second input signal, wherein the first input signal and the second input signal are attenuated before being used for generating the reference signal.

20. (Previously presented) The wobble signal generating apparatus as claimed in claim 19, further comprising an extra attenuator coupled between the output terminal and one of the non-inverting terminal and the inverting terminal of the first operation unit.

21. (Original) The wobble signal generating apparatus as claimed in claim 20, wherein the extra attenuator, the first attenuator and the second attenuator are all resistors.

22. (Original) The wobble signal generating apparatus as claimed in claim 13, wherein the first operation unit comprises an inverting terminal, a non-inverting terminal and an operational output terminal, the inverting terminal receives the first input signal and the non-inverting terminal receives the second input signal for generating and delivering the reference signal via the output terminal.

23. (Original) The wobble signal generating apparatus as claimed in claim 22, further comprising:

a second operation unit couples to the first operation unit, comprising a grounding non-inverting terminal, a non-inverting terminal, and an output terminal, wherein the non-inverting terminal receives some of the plurality of reflected light signals for generating and delivering the first input signal via the output terminal; and

a third operation unit couples to the first operation unit, comprising a grounding non-inverting terminal, a non-inverting terminal, and an output terminal, wherein the non-inverting terminal receives others of the plurality of reflected light signals for generating and delivering the second input signal via the output terminal.

24. (Original) The wobble signal generating apparatus as claimed in claim 23, further comprising:

a first attenuator coupled with the first operation unit for attenuating the first input signal;

a second attenuator coupled with the first operation unit for attenuating the second input signal;

a third attenuator coupled with the second operation unit for attenuating the plurality of reflected light signals; and

a fourth attenuator coupled with the third operation unit for attenuating the plurality of reflected light signals, wherein the first input signal and the second input signal are attenuated before being used for generating the reference signal,

and the plurality of the reflected light signals are attenuated before being used for generating the first and the second input signal.

25. (Original) The wobble signal generating apparatus as claimed in claim 24, further comprising:

a first extra attenuator coupled between the output terminal and one of the non-inverting terminal and the inverting terminal of the first operation unit;

a second extra attenuator coupled between the output terminal and the non-inverting terminal of the second operation unit; and

a third extra attenuator coupled between the output terminal and the non-inverting terminal of the third operation unit, wherein a factor substantially equal to a ratio derived from characteristic values of the first extra attenuator, the second extra attenuator, the third extra attenuator, the first attenuator, the second attenuator, the third attenuator, and the fourth attenuator.

26. (Original) The wobble signal generating apparatus as claimed in claim 25, wherein the first extra attenuator, the second extra attenuator, the third extra attenuator, the first attenuator, the second attenuator, the third attenuator, and the fourth attenuator are all resistors.

27. (Original) The wobble signal generating apparatus as claimed in claim 23, further comprising an amplifier coupled between the first operation unit and the processing unit for amplifying the reference signal before being processed for generated the wobble signal.

28. (New) A wobble signal generating apparatus of an optical-electronic system, comprising:

a first operation circuit continuously generating a first input signal according to a first light signal and a fourth light signal reflected from an optical storage medium, wherein the first operation circuit comprises:

a first operational amplifier having a first grounding non-inverting terminal, a first inverting terminal, and a first output terminal;

a first resistor coupled to the first inverting terminal and receiving the first light signal;

a second resistor coupled to the first inverting terminal and receiving the fourth light signal; and

a third resistor coupled between the first inverting terminal and the first output terminal;

a second operation circuit continuously generating a second input signal according to a second light signal and a third light signal reflected from the optical storage medium, wherein the second operation circuit comprises:

a second operational amplifier having a second grounding non-inverting terminal, a second inverting terminal, and a second output terminal;

a fourth resistor coupled to the second inverting terminal and receiving the second light signal;

a fifth resistor coupled to the second inverting terminal and receiving the third light signal; and

a sixth resistor coupled between the second inverting terminal and the second output terminal;

a third operation circuit continuously generating a reference signal according to the first input signal and the second input signal, wherein the third operation circuit comprises:

a third operational amplifier having a third non-inverting terminal, a third inverting terminal, and a third output terminal;

a seventh resistor coupled between the first output terminal and the third inverting terminal, and receiving the first input signal;

an eighth resistor coupled between the second output terminal and the third non-inverting terminal, and receiving the second input signal; and

a ninth resistor coupled between the third inverting terminal and the third output terminal; and

a processing unit for processing the reference signal to generate the wobble signal.

29. (New) The wobble signal generating apparatus as claimed in claim 28, wherein the reference signal is substantially a multiplication of a factor and a difference between the first input signal and the second input signal.

30. (New) The wobble signal generating apparatus as claimed in claim 29, wherein the factor is a ratio of resistances of the first resistor, the second resistor, the third resistor, the fourth resistor, the fifth resistor, the sixth resistor, the seventh resistor, the eighth resistor, and the ninth resistor.

31. (New) The wobble signal generating apparatus as claimed in claim 28, further comprising a gainer coupled between the third operation circuit and the processing unit for amplifying the reference signal before being processed generating the wobble signal.